INDEX

AUTHORS

Alexanderson, G. L., *Ars Expositionis: Euler as Writer and Teacher*, 274-278.

Andrews, George E., *Euler's Pentagonal Number Theorem*, 279-284.

Barbeau, E. J., *Incommensurability Proofs: A Pattern that Peters Out*, 82-90.

Boas, R. P., *Names of Functions: The Problems of Trying for Precision*, 175-176.

Bragg, L. R., and Grossman, Jerrold W., *An Application of the Dominated Convergence Theorem to Mathematical Statistics*, 41-42.

Brams, Steven J., see Fishburn, Peter.

Bruen, A., Fisher, J.C., and Wilker, J.B., *Appolonius by Inversion*, 97-103.

Burckhardt, J. J., *Leonhard Euler, 1707-1783*, 262-273.

Burgstahler, Sylvan, *The Approximation of Factorial Fragments*, 156-160.

Burk, Frank, *Approximations to e*, 34-36.

Bushaw, D., *Wroński's Canons of Logarithms*, 91-97.

Chilaka, James O., *Proof without Words: Sum of Squares*, 90.

Dudley, Underwood, *Formulas for Primes*, 17-22.

_____, see Erdös, Paul.

Edwards, Harold M., *Euler and Quadratic Reciprocity*, 285-291.

Erdös, Paul, and Dudley, Underwood, *Some Remarks and Problems in Number Theory Related to the Work of Euler*, 292-298.

Fishburn, Peter C., and Brams, Steven J., *Paradoxes of Preferential Voting*, 207-214.

Fisher, J. C., see Bruen, A.

Gallant, Charles D., *Proof without Words: Completing the Square*, 110.

Grabiner, Judith V., *The Changing Concept of Change: The Derivative from Fermat to Weierstrass*, 195-206.

Gray, Mary W., *Statistics and the Law*, 67-81.

Grossman, Jerrold W., see Bragg, L. R.

Guy, Richard K., *Conway's Prime Producing Machine*, 26-33.

Halberstam, Heini, *Gaps in Integer Sequences*, 131-140.

Hanson, D., Seyffarth, K., and Weston, J. H., *Matchings, Derangements, Rencontres*, 224-229.

Hilton, Peter, and Pedersen, Jean, *Approximating Any Regular Polygon by Folding Paper*, 141-155.

Jones, William R., see Landau, Martin.

Jungck, Gerald, *An Alternative to the Integral Test*, 232-235.

Kalman, Dan, *Polynomial Translation Groups*, 23-25.

Klamkin, M. S., *On Proving Trigonometric Identities*, 215-220.

Kline, Morris, *Euler and Infinite Series*, 307-314.

Landau, Martin D., and Jones, William R., *A Hardy Old Problem*, 230-232.

Long, Cliff, *Visualization of Matrix Singular Value Decomposition*, 161-167.

Lützen, Jesper, *Euler's Vision of a Generalized Partial Differential Calculus for a Generalized Kind of Function*, 299-306.

McWorter, William A., Jr., *An Algorithm for the Characteristic Polynomial*, 168-175.

Morrison, Clarence C. and Stynes, Martin, *An Intuitive Proof of Brouwer's Fixed Point Theorem in R^2*, 38-41.

O'Brien, Katharine, *Paradoxes*, 176.

Oltikar, Sham and Wayland, Keith, *Construction of Smith Numbers*, 36-37.

Paik, Minja K., *Empty or Infinitely Full?*, 221-223.

Paine, Dwight, *Triangle Rhyme*, 235-238.

Pedersen, Jean, see Hilton, Peter.

Petek, Peter, *A Nonconverging Newton Sequence*, 43-45.

Rockett, Andrew M., *Arc Length, Area, and the Arcsine Function*, 104-110.

Senechal, Marjorie, *Coloring Symmetrical Objects Symmetrically*, 3-16.

Seyffarth, K., see Hanson, D.

Spiegel, M. R., *So Many Things to Know*, 16.

Stynes, Martin, see Morrison, Clarence.

Wayland, Keith, see Oltikar, Sham.
Weston, J. H., see Hanson, D.
Whitcomb, Kenneth J., *A Note on Linear Diophantine Equations*, 223.
Wilker, J. B., see Bruen, A.

TITLES

Algorithm for the Characteristic Polynomial, An, *William A. McWorter, Jr.*, 168-175.
Alternative to the Integral Test, An, *Gerald Jungck*, 232-235.
Apollonius by Inversion, *A. Bruen, J. C. Fisher, and J. B. Wilker*, 97-103.
Application of the Dominated Convergence Theorem to Mathematical Statistics, An, *L. R. Bragg and Jerrold W. Grossman*, 41-42.
Approximating Any Regular Polygon by Folding Paper, *Peter Hilton and Jean Pedersen*, 141-155.
Approximation of Factorial Fragments, The, *Sylvan Burgstahler*, 156-160.
Approximations to *e*, *Frank Burk*, 34-36.
Arc Length, Area, and the Arcsine Function, *Andrew M. Rockett*, 104-110.
Ars Expositionis: Euler as Writer and Teacher, *G. L. Alexanderson*, 274-278.
Changing Concept of Change: The Derivative from Fermat to Weierstrass, The, *Judith V. Grabiner*, 195-206.
Coloring Symmetrical Objects Symmetrically, *Marjorie Senechal*, 3-16.
Construction of Smith Numbers, *Sham Oltikar and Keith Wayland*, 36-37.
Conway's Prime Producing Machine, *Richard K. Guy*, 26-33.
Empty or Infinitely Full?, *Minja K. Paik*, 221-223.
Euler and Infinite Series, *Morris Kline*, 307-314.
Euler and Quadratic Reciprocity, *Harold M. Edwards*, 285-291.
Euler Glossary, 316-325.
Euler, Leonhard, 1707-1783, *J. J. Burckhardt*, 262-273.
Euler's Pentagonal Number Theorem, *George E. Andrews*, 279-284.
Euler's Vision of a Generalized Partial Differential Calculus for a Generalized Kind of Function, *Jesper Lützen*, 299-306.
Formulas for Primes, *Underwood Dudley*, 17-22.
Gaps in Integer Sequences, *Heini Halberstam*, 131-140.
Hardy Old Problem, A, *Martin D. Landau and William R. Jones*, 230-232.
Incommensurability Proofs: A Pattern That Peters Out, *E. J. Barbeau*, 82-90.
Intuitive Proof of Brouwer's Fixed Point Theorem in R^2, An, *Clarence C. Morrison and Martin Stynes*, 38-41.
Linear Diophantine Equations, A Note On, *Kenneth J. Whitcomb*, 223.
Matchings, Derangements, Rencontres, *D. Hanson, K. Seyffarth, and J. H. Weston*, 224-229.
Names of Functions: The Problems of Trying for Precision, *R. P. Boas*, 175-176.
Nonconverging Newton Sequence, A, *Peter Petek*, 43-45.
Number Theory Related to the Work of Euler, Some Remarks and Problems on, *Paul Erdös and Underwood Dudley*, 292-298.
Paradoxes, *Katharine O'Brien*, 176.
Paradoxes of Preferential Voting, *Peter C. Fishburn and Steven J. Brams*, 207-214.
Polynomial Translation Groups, *Dan Kalman*, 23-25.
Proof without Words: Completing the Square, *Charles D. Gallant*, 110.
Proof without Words: Sum of Squares, *James O. Chilaka*, 90.
So Many Things to Know, *M. R. Spiegel*, 16.
Statistics and the Law, *Mary W. Gray*, 67-81.
Triangle Rhyme, *Dwight Paine*, 235-238.
Trigonmetric Identities, On Proving, *M. S. Klamkin*, 215-220.
Visualization of Matrix Singular Value Decomposition, *Cliff Long*, 161-167.
Wroński's Canons of Logarithms, *D. Bushaw*, 91-97.

PROBLEMS

P, S, and Q refer to Proposals, Solutions and Quickies, respectively. Page numbers are given in parentheses. Thus, P1175(239) *refers to proposal number* 1175 *which appears on page* 239.

Anon, P1175(239).
Bager, Anders, S1137(53).
Bailey, Craig K., S1152,II(243).
Berlau, A. Joseph, P1164(46).
Birkenmeier, Gary F., P1180(326).
Blum, Manuel, and Shallit, J. O., P1177(239).
Byrd, Paul F., S1133,I(48).
Cabane, Robert, Q681(47).
Cater, F. S., S1136(53).
Dence, Thomas P., P1174(178).
Douglas, A. J., and Vickers, G. T., S1143a(118).
Editor's Comment, S1142(117).
Elkies, Noam, Q684(112).
Erdös, Paul, and Nathanson, Melvyn B., S1008(113).
Euler, Russell, P1178(326).
Ferguson, Thomas S., P1173(177).
Frame, J. S., S1140(115).
Gentile, Enzo R., P1162(46).
Giblin, Peter J., 1151,IIb(242).
Grossman, Michael, P1163(46).
Hoyt, John, P1170(177).
Izard, Roger, P1161(46).
Jager, Thomas, S1143b(118).
Kantrowitz, Mark, P1171(177).
Kappus, Hans, S1133,II(49).
Kestelman, H., P1176(239).
Kimberling, Clark, P1166(111).
Klamkin, M. S., P1172(177).
_____, Q685(178).
_____, Q686(240).
Klein, Benjamin G., S1134(50).
Koelle, Ruth, S1145(178).
Kronheimer, P. B., S1139(115).
Kuipers, L., S1132b(48).
_____, see Kuipers, M.
Kuipers, M., and Kuipers, L., S1151a,Ib(241).
Lyness, Robert C., Q682(112).
Mascioni, Vania D., S1146(179).
_____, S1150(240).
_____, S1153(243).
McCann, Miriam, S1152,I(243).
McGrath, Michael, S643,II(112).
Nathanson, Melvyn B., see Erdös, Paul.
Patruno, Gregg, Q680(47).
Putz, John, S1148(181).
Rabinowitz, Stanley, P1168(111).
Robertson, James S., S1147(180).
Sastry, M. S. K., S1132a(47).
Schumer, Peter, P1169(112).
Schweitzer, Paul, S1135(51).
Sedinger, Harry, S1138(115).
Seiffert, Heinz-Jürgen, P1165(111).
Shallit, J. O., see Blum, Manuel.
Tsintsifas, George, P1181(326).
Vickers, G. T., see Douglas, A. J.
Wang, Edward T. H., P1167(111).
Wardlaw, William P., P1179(326).
Whitt, Lee, Q687(326).
Wilansky, A., Q683(112).
Zabell, Sandy L., S1141(116).

NEWS & LETTERS

Acknowledgments, 327.
Computational Complexity Course, 185.
Correction to "Boole's" Algebra, 185.
Distinguished Service Award: Edwin F. Beckenbach, 58.
Fifteenth Canadian Mathematics Olympiad (1983), 252.
For Stamp Buffs, 124.
Index, 329.
Inequality Rediscovered, 58.
Miami University Conference, 185.
Microcomputer Conference, 123.
More, Old, Goats, 123.
"Nice" Orthogonal Matrices, 250.
1983 Ohio Short Course, 59.
1982 William Lowell Putnam Mathematical Competition, 124; solutions, 185; winners, 185.
Pólya, Allendoerfer 1982 Awards, 251.
Short Course on Data Structures, 123.
Solutions to 1982 Canadian and International Olympiads, 59.
Special November Issue, 251.
Statistics and Life Insurance, 250.
Twelfth USA Mathematical Olympiad (1983), winners, 251; problems 252.
VisUMAP Project, 59.
Workshops in Applicable Math, 124.